Resident Handbook

2016-2017

Department of Anesthesiology

Washington University School of Medicine

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Contents

MISSION STATEMENT

The mission of the resident training program at Washington University School of Medicine is to train highly qualified anesthesiologists who will advance the science of anesthesiology and serve as leaders in their medical communities.

INTRODUCTION

Welcome to the Department of Anesthesiology at Washington University School of Medicine. Congratulations on your accomplishments, and welcome to the next stage of your career. We are prepared to help become a consultant anesthesiologist and contributing member of our specialty.

Anesthesiology is the ultimate study of physiology and pharmacology. It encompasses every medical specialty from neonatology to geriatric medicine. There is much to be mastered during a three-year period. In your lectures and inside your textbooks, you will learn a great deal about the scientific underlayment of our profession. In the OR and at the bedside, you will put this knowledge into practice, but you will also come to appreciate that anesthesia care is as much craft as science.

As medical students, we all remember colleagues who did not want to be anesthesiologists because “all the patients are asleep.” This is a gross misconception. Our role as a consultant begins as a patient is evaluated and optimized for surgery. Many patients facing surgery identify “anesthesia” and “pain” as their greatest fears; the anesthesiologist can have a profound impact on these patients’ perioperative experiences. Your patients will often remember the preoperative visit and the comforting words you provide as the most important part of your care. The dimensions of the operating room and the administration of the anesthetic do not limit our specialty. Anesthesiologists were the pioneers in the areas of critical care medicine and pain management. We continue to be leaders in these important subspecialties.

Our specialty is advancing daily and our department is on the forefront in many of these areas. During your residency, you will learn more about the basic sciences that are the foundation of our specialty. You will definitely develop a deeper understanding of basic and clinical research through our conferences and journal clubs. You will also learn to practice evidence-based medicine. Even if you have no aspirations to become an academic anesthesiologist, the skill to evaluate the literature will be invaluable as you continue your post-residency education. However, for individuals who are interested in a possible career in academic anesthesiology, the infrastructure for a meaningful clinical-scientist track during your third

year of training is well established. Our department is uniquely situated to prepare you for a rewarding career as an anesthesiologist. There are rewarding careers available in our many subspecialty areas as well as the areas of education and administration. We will open every door for you and let you walk in so that you may find your own unique and fulfilling career path.

Welcome to the Residency Program at the Washington University Department of Anesthesiology!

G. Richard Benzinger, MD, PhD
Program Director

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RESIDENCY STRUCTURE

Anesthesiology is a four-year training program. Following the internship, the next three years are termed "clinical anesthesia" (CA) years. The CA-I and CA-II years form the basis for your training; you will participate in all aspects of anesthesiology. The CA-III year has fewer requirements. Many residents

choose clinical electives in line with their interests and future careers. The American Board of Anesthesiology (ABA) also allows residents to participate in a clinical-scientist track; this includes six months of research in addition to the six months of further clinical training. Participation in such a track requires that the resident be in good standing in their clinical training, have a mentor and project approved by the Scholarship Oversight Committee, and receive the approval of the Departmental Chairperson.

A DAY IN THE LIFE

This manual contains a great deal of information about what the residency program expects from you, and what resources are available to help you in your professional development. It is hard to consider topics like this in the abstract. Therefore, it seems useful to begin this manual with an outline of what will be expected of you during a typical day in an operative rotation:

Schedules for the next day's cases are published the afternoon before. (More on this later.) You are expected to look over your schedule for the next day before you leave the hospital. If any of your patients are inpatients, you should visit them preoperatively, examine them, and talk with them about what to expect tomorrow. You should collect all of the relevant data from the patient's physical and electronic chart. Patients scheduled to come into the hospital on the morning of surgery will (…usually…) have preoperative data in their electronic record. Also in the afternoon, you should visit the previous day's patients and check on their progress.

That evening, you should come up with an anesthetic plan for your patients. If you will be doing a case that you aren't familiar with, you should consult the department's on-line clinical protocols or a reference book to get an idea of common management plans for the case. When you are ready, you should page your attending for the next day. Present your patients and summarize your plans to your attending, and s/he will probably make appropriate comments and modifications.

Patients should generally be taken into the OR by 0720.[1] You should arrive in time to have your room set up and to visit the patient in the holding area before room time. This means arriving earlier when you expect to do procedures (like epidurals) in the holding area, or when the room setup is more extensive. Various ancillary staff will help you with your day: pharmacists will prepare infusions; anesthesia techs will set up fluids and central line trays; holding area nurses will start IV's. Remember that this support is there to make your work more efficient, but that *these people do not relieve you of the responsibility for your setup*. Nothing looks worse than wheeling the patient into an unprepared OR and saying "But I *told* the tech I'd be doing an art line."

As each case finishes, you should transport the patient to the PACU or the ICU and give a report to the nurse or resident taking charge. You should then make sure that your room is set up for the next case, and visit the next patient in the holding area.

When your room is finished, you should check with the anesthesiologist in charge of your pod, and with the trauma attending, before leaving. Return your narcotics, and check out the schedule for tomorrow!

[1] All rooms start at 0820 on Wednesdays. Pod 3 starts at 0820 on Mondays, too. Cardiac cases aim for in-room times of 0645 (T,Th,F) and 0745 (M,W).

EDUCATIONAL OBJECTIVES

The educational mission of the Department is to train highly qualified anesthesiologists who will be prepared in all aspects of our specialty. This is accomplished in two settings: patient care and didactic sessions/conferences.

Patient Care

The term "resident physician" comes from trainees historically living in the hospital. Although we no longer adhere to that archaic training technique, the basis for it is clear. Residents must care for many patients in order to be adequately exposed to the various technical, medical and social aspects of medicine. This is particularly applicable in anesthesiology in which we care for patients from the "cradle" to the "grave". Patient care also provides clinical examples to fortify your learning. It prevents the old "in one ear and out the other" that often occurred during our years in medical school. In other words, patient care forms the structure around which residents are trained. For obvious reasons, residents are responsible for maintaining a patient care log in which case type, patient age, procedures performed and outcomes are recorded. This data will be reported to the ACGME as evidence of your training.

As mentioned in the introduction, the anesthesiologist's job begins with the preoperative evaluation. This is the time that the all-important patient-physician relationship begins. Each patient is an individual and should be treated as such. The preoperative evaluation is critical for the development of a cohesive, tailored anesthetic plan, which in turn may decide the patient's outcome. The motto of anesthesiology is vigilance; this should begin during the preparative phase of the care. It is the resident's responsibility to perform this duty with care and to use it as an educational opportunity. This is accomplished in two ways: reading about the particular case, pathology, etc., and communicating a cohesive plan to your attending prior to the case. Communicating the plan is most efficiently accomplished the night prior to the case. It is understood that this is a developed skill; it should become second nature prior to your graduation from the program.

The second phase of patient care begins in the operating room. Each resident should be fully prepared (in a timely manner) to care for the patient as outlined in the anesthetic plan. Failure to do so violates our vigilance and our professional code of conduct. Keep in mind that you can be over-prepared. For example, not every patient needs a blood warmer available; it would be cost-inefficient to prepare one in such a case just because "you might need it". The resident should discuss the use of such equipment and drug choices with the attending physician prior to the case. Although the attending physician is ultimately responsible for the care of each patient, the resident should be regarded as the primary caregiver. It is this attitude that will allow you to continue the patient-physician relationship that you developed. It will also improve your education. You will find it more rewarding to actively participate in every decision rather than "watch and learn". This will require a deeper understanding of the pathology, physiology and pharmacology.

The third phase of patient care is in the post-operative period. This is not limited to caring for the patient in the post-anesthesia care unit (PACU). The implications of the anesthetic / surgery are often not seen until the post-operative period; therefore, it is incumbent upon the resident to follow-up with each patient during a post-operative visit. The results of such a visit should be recorded in the chart and discussed with the attending physician with whom you cared for the patient. It should be pointed out that complications occur after surgery; therefore, good charting habits should be used. It is wise to discuss any complication with the attending prior to recording it in the chart such that they will have input.

As pointed out in the introduction, anesthesiology training is not limited to the operating room. The same principles apply to the critical care setting and pain management clinic. The resident should be the primary caregiver and be actively involved in the care plan. One will realize the fullest educational benefit with this attitude.

In summary, the resident is responsible for the preoperative evaluation, determination of an anesthetic plan, communication of the plan with the attending anesthesiologist, conduction of the plan in the operating room, and the post-operative evaluation of the patient. Below is an example of an outline to help you to organize your thoughts prior to your preoperative conversation with the attending.

Medical problems

You should summarize the patient's medical problems in a concise yet complete manner, focusing on those with impact on the anesthetic management (including full stomach issues, medications, allergies, medical history, prior surgery, prior anesthesia).

Physical examination

You should summarize the patient's physical findings in a complete, concise manner again focusing on the airway assessment, cardiovascular, thoracic and neurological exams. This history and physical examination should be used in tandem to determine if any further testing is needed prior to surgery.

Laboratory findings (including tests)

Abnormal lab findings should be addressed and a determination should be made as to what action should be taken.

Anesthetic plan

The basis of the anesthetic plan is the history, physical examination, and the laboratory findings. To develop a plan, you need to ask several questions. First, is this case emergent? Second, are there full stomach issues? Third, if the case is not emergent, are there any medical issues that should be addressed prior to the anesthetic (e.g. new onset angina, blood glucose > 400 mg/dl, moderate wheezing, etc.). After these questions are answered adequately, the intraoperative portion of the plan can be developed.

Monitors

The American Society of Anesthesiology (ASA) has defined standard monitors; these include ECG, pulse oximetry, non-invasive blood pressure monitoring, end-tidal carbon dioxide monitoring, oxygen sensor, and temperature if applicable. Stating that you will use the standard ASA monitors is sufficient.

Many patients will require more invasive monitoring techniques; these include intra-arterial, central venous and pulmonary artery catheters. All of these techniques have risks; therefore, their use should be justified by the benefit that the individual patient will realize in exchange for the risk. The resident should be prepared to defend their choices by understanding the risk to benefit ratio for each case. Other monitors are often indicated; these include somatosensory evoked potentials, EEG, and transesophogeal echocardiography. The resident should recognize the indications for these monitors and understand the information that can be obtained from them.

Premedications

The need for premedication has decreased with the development of newer anesthetic agents and the advent of same-day surgical admissions. However, certain cases require the use of premedications

including sedatives, anti-sialagogues, anti-emetics, non-steroidal medications, steroids, antihistamines and others. The resident should be cognizant of these and use them appropriately.

Induction

This is a very important aspect of the anesthetic; it should be planned based on the individual patient's history, physical examination and laboratory findings. When communicating the induction plan, you should include a brief summary of the pertinent issues so that the attending is aware of your understanding of the patient's overall status. For example, you may state the following: Based on the patient's known coronary disease, it will be very important to maintain coronary perfusion pressure and minimize myocardial oxygen demand during induction. It will be necessary to maintain diastolic arterial pressure, minimize left ventricular end-diastolic pressure and prevent tachycardia. To accomplish this, I will use fentanyl and lidocaine to blunt the response to laryngoscopy, and etomidate to induce the patient. I will maintain diastolic pressure with phenylephrine and treat tachycardia with esmolol. I will add nitroglycerin if there are signs of ischemia…. With these five sentences, the induction plan is fully communicated, and your level of understanding of the implications of anesthesia in this particular patient is clear to the attending. As you can see, to do this properly, you will need to read about the type of case and the pathophysiology of the patient prior to formulation of the plan.

Maintenance of anesthesia

A brief plan for the maintenance of the anesthetic should be laid out; again it should be based on the individual patient. It should also include a plan for fluid and blood product management during the case.

Emergence

Again, a brief plan for emergence should be stated. This is particularly important if no emergence is planned, or if there will be special issues surrounding the emergence such as airway compromise, etc.

Post-operative care

A brief plan should be articulated. It should focus on potential post-operative complications, fluid needs, and most importantly, pain management.

Didactic curriculum

The didactic curriculum consists of a series of lectures:

Tutorial lecture series

The basics of anesthesia care are outlined in these lectures during your first several weeks of training. Coupled with this, the new CA-I residents are posted in the operating room each day with select attending anesthesiologists who reinforce the information given during these lectures in the patient care setting. The CA-I residents also spend 24-32 hours in the clinical simulation center during this time to improve their technical skills and vigilance in the operating room.

The tutorial lecture topics are chosen because it is important that residents master this content from the beginning of their training. It is crucial that you attend all of these lectures. If unusual circumstances cause you to miss a lecture, the audio and slides are available form the department's educational Sharepoint site. Please review the lecture content as soon as possible.

Education Days

The CA-I, CA-II and CA-III residents have assigned protected time for education on a rotating basis. Each week, a different class participates in a variety of educational offerings including lectures, workshops, problem-based learning discussions, and clinical simulation. Problem-based learning (PBL) modules may be completed online, followed by "live" discussions with a faculty member. Simulation sessions are conducted in both adult and pediatric settings.

The CA-I curriculum focuses on the basic sciences including pharmacology and physiology. Its curriculum closely parallels the content outline for the ABA's Basic exam. Also included in this series are small-group workshops that include skill stations including anesthesia machine check and troubleshooting, difficult airway management, techniques for single-lung ventilation, pediatric and adult resuscitation, etc.

The CA-II curriculum places emphasis on subspecialty areas of anesthesiology, paralleling the content outline for the ABA's Advanced exam. In addition, written and oral board preparatory sessions are conducted. A combination of ABA questions, textbook questions, and evidence-based questions may be used to facilitate learning.

The CA-III curriculum guest speakers give career seminars on the following topics: medico-legal aspects of anesthesiology, career planning, contracts, retirement plans and benefit packages, etc. Finally, the CA III residency class participates in a monthly oral board preparatory session which is facilitated by dedicated faculty members.

This conference is designed to assist residents in oral presentations while discussing advanced topics. The format of the clinical problem-based learning discussions follows that utilized at the ASA Annual Meeting PBLDs.

Written Board Review

Focused review for the Basic exam is offered through participation in StartPrep, a multi-department online educational collaboration. Participation in StartPrep is required for CA-1 residents.

All residents have access to the online review site OpenAnesthesia. This site has a relatively sophisticated algorithm for tracking residents' knowledge in various anesthetic subspecialties, and allows residents to compare their knowledge to peer averages. For 2016-2017, participation in this program will also be required.

Individual clinical rotations will have their own lecture series and didactic programs. You are expected to participate in these activities while you rotate through these areas.

ACGME Competencies

The Department of Anesthesiology recognizes the importance of the general competencies outlined by the ACGME. This section of the handbook explicitly explains the residency's educational program and evaluation process as they relate to each of these six competencies. Of course, each clinical rotation will have its own specific goals and evaluation processes for each of these competencies. You can find rotation-specific information in the rotation objectives for that area. These are located on the department's intranet and are emailed to you at the beginning of each rotation.

Patient Care

Educational Program
The major thrust of our educational program is dedicated toward patient care. The clinical and didactic program that is currently in place already meets any and all requirements for resident mastery of this competency.

Evaluation Process
It is incumbent upon the faculty to complete timely written evaluations regarding residents' ability to care for patients effectively. The evaluation form already exists and is available on-line. Residents should be evaluated in writing at a minimum of once per month. Since residents work with several faculty members every month, all should have direct input in their evaluation.

Additionally, the department will use the simulation lab to test basic clinical skills that every anesthesiologist should have. These include, but are not limited to, the ability to identify anesthesia delivery system malfunctions, advanced airway skills, and recognition and the appropriate treatment of intraoperative emergencies.

The department will also use the In-Training Examination (given annually) as a tool for evaluating the residents in this area. It is impossible to be competent in caring for patients without having a solid knowledge base. Although the scores will not be used for promotion purposes, they will provide important feedback to the program director and residents regarding their level of knowledge. The evaluations in conjunction with these scores will allow for the development of individualized educational goals and means to achieve them.

Resident patient logs have long been recorded and tracked in anesthesiology training. The department will continue to use these logs to verify that residents are performing the appropriate number of cases and techniques to meet the requirements that are delineated by the American Board of Anesthesiology.

The department also assesses the ability to form a cohesive treatment plan and implementation of such plan through the use of standard oral examinations. The format of these examinations, given annually by select faculty, is based on the format used by the American Board of Anesthesiology. Each resident receives a score and oral feedback following the exam. The results are kept in the resident file.

Medical Knowledge

Educational Program
As stated above, the major thrust of our educational program fully addresses this competency. The resident is expected to increase their medical knowledge in the following ways:

- Caring for patients with a wide-array of pathology
- Maintaining a reading program guided by the care of these patients
- Participating fully in the Department's didactic, conference and journal club programs
- Using the library facilities (both the departmental and medical school libraries) and internet resources

Evaluation Process

The first tier of evaluation of each resident's fund of knowledge is the written evaluation. As outlined above, the current evaluation form addresses this issue and should be filled out in a timely fashion.

The second tier of evaluation in this area is the written In-Training Examination (given annually) and the Anesthesia Knowledge Tests. These are excellent tools to evaluate the residents' fund of knowledge. In addition to giving each resident feedback regarding their depth of knowledge, the overall results of all the residents are used to shape the curriculum so that areas of weakness can be addressed.

The third tier of evaluation is the clinical simulation lab. Through the use of the patient simulator and models, the residents' knowledge of both the technical aspect of anesthesiology and treatment of medical emergencies will be assessed.

The fourth tier of evaluation is the case log report. As outlined above, the logs will be used to verify that the residents care for the proper scope of patients as delineated by the American Board of Anesthesiology to provide the best opportunity to develop an adequate fund of knowledge in this field.

The fifth tier of evaluation is the annual oral examination. As outlined above, the oral exam provides feedback regarding the resident's fund of knowledge in addition to sound patient care management.

<u>Practice-Based Learning and Improvement</u>

Educational Program

The current clinical and didactic program helps the residents attain this competency in the following manner:

- Each resident cares for a wide array of patients; this gives each resident the opportunity to use the resources available to make sound clinical decisions. These may include consulting physician services, radiologic imaging, laboratory tests, invasive tests, and other ancillary services (i.e. medical records, social work).
- Residents are expected to expand upon their knowledge using the available literature. Pertinent journals are available in the departmental and medical school library; each resident also has the ability to perform on-line literature searches on the departmental computers. Each resident receives information regarding the use of the various databases during their orientation.
- Residents are expected to instruct medical students or junior residents when appropriate. This provides practical experience in teaching.
- CA-3 residents will present and lead a clinical case conference that will use the case discussion format to develop practice-based learning and teaching skills.

Evaluation Process

As stated above, the backbone of our evaluation of competency in this area is the written evaluation. Faculty should assess the resident's ability to make sound clinical judgment based on their interpretation of the available data; furthermore, residents should be able to determine if further testing is needed. In applicable rotations (particularly critical care and pain management) the resident should be able to interact with consultants and social workers to provide the best possible care for the patient. Faculty should also assess the ability of the resident to incorporate applicable data from the literature in the care of their patients. They should assess the resident's ability to do a focused literature search and have them comment upon the pertinent findings.

Second, residents will be evaluated on their presentation and participation in the case conferences in which they will be asked to use the literature in relation to the case that they present. They should be able to present several studies supporting their viewpoint. Third, residents will be evaluated on their presentation and participation in the journal club. Residents are expected to critically analyze the paper and comment on its validity and applicability. The faculty moderator will evaluate the resident on their preparation and presentation.

Interpersonal and Communication

Educational Program

The current clinical and didactic programs are geared toward competency in this area. Residents are expected to perform a focused history and physical examination on all their patients, formulate an anesthetic plan and present this plan orally to the attending physician prior to each case. In the critical care setting, the residents are expected to obtain a history, perform a physical examination and present the patient's case on rounds, complete with a care plan. All residents are expected to be respectful of the patients, their families, and other members of the health care team. They should effectively communicate with the surgical and operating room staff such that patient care is held to the highest of standards. Both the Department and the GME staff formally instruct residents in this area during the orientation to the residency.

Evaluation Process

The major evaluation tool for this competency is the written evaluation. This area has long been an integral part of the American Board of Anesthesiology evaluation form; all faculty members are required to comment upon it in writing in a timely fashion. They should comment on the ability of the resident to communicate their anesthetic or care plan as well as the resident's interaction with the patient, the patient's family, and the other members of the patient care team.

Communication skills will also be evaluated during the resident's oral presentations on rounds, at conference and at journal club. The standardized oral examination will also serve as an evaluation tool.

Since the medical record is a form of communication, the residents are expected to be up-to-date with their records. Furthermore, the intraoperative record should be kept in a legible fashion such that any future caregiver can understand it. This will be evaluated by a record check once every six months; the resident will be given written feedback regarding their record-keeping ability.

Professionalism

Educational Program

The major education regarding professionalism is in the clinical training program. Residents are required to act in a professional manner at all times; they receive individual training in this area by the faculty. Additionally, the Department and the Graduate Medical Education office explicitly address this topic in the orientation. The residents also receive several lectures during their training regarding ethical, socio-economic and professional conduct.

Evaluation Process

The American Board of Anesthesiology regards professionalism as one of a physician's core attributes; therefore, it has been included in the written evaluation for many years. The faculty should observe the residents' interactions with the patient, their family, and other members of the patient care team.

The record review, as outlined above, will also serve as an evaluation tool in this area. The anesthetic record is part of a medico-legal document and should be kept in a professional manner. The resident will receive written feedback regarding this aspect of their patient care.

Several rotations including CPAP, obstetrics, and the critical care units will use 360 degree evaluations form non-anesthesiologists practitioners for the purpose of evaluating professionalism.

Systems-Based Practice

Educational Program

Residents are instructed in this area in both the didactic series as well as in the clinical care of each patient. In the departmental orientation, the resident staff is instructed regarding operating room efficiency, drug costs, and good record keeping. Each faculty member is to discuss the care of the patient prior to the case; in this manner, the faculty can also address these issues with the resident. In the didactic series, the residents hear lectures regarding operating room management, and cost-containment.

All senior residents will participate in the organization of the departmental Morbidity and Mortality conference. Residents will research cases for this conference. Under the direction of a faculty moderator, they will present the cases at the conference. They will analyze the medical and systemic contributors to the patient morbidity. Following the conference, they will prepare a brief written record that will be retained in their evaluation folder.

Evaluation Process

The written evaluation process is most applicable in assessing the resident's ability to work within the medical system in order to provide the best medical care. The faculty should comment upon the ability of the resident to discuss these issues and apply them to the daily management of the patient. This could be as simple as deciding which drug to use to the monitoring plan for the patient. Faculty will also evaluate the quality of the resident's presentation at the Morbidity and Mortality Conference as further evidence of competency in this area.

EXPECTATIONS OF RESIDENTS

Clinical expectations

As it was in medical school, the training program provides the infrastructure for education; it is the responsibility of the faculty to maintain this commitment. Residents also share the responsibility for their own education. In other words, residents must take advantage of all that is offered to reach their full potential. The following guidelines will help you attain your goals.

View yourself as the patient's physician. You should see your own inpatients preoperatively, even if the IPAP nurse practitioner or resident has already seen them. You should look at the IPAP note as a tool to allow you to conduct your preop visit more effectively, and not as a replacement for your visit. If you

have outpatients, you should develop the plan from your review of the CPAP chart and electronic medical record. Once you have formed your plans, you should contact your attending physician for the next day. (See below.) This includes post-call days and weekends.

Intraoperatively, you should continue to consider yourself as the primary caregiver; you should be involved in all decisions. When you respond to intraoperative events, you should try to articulate your thoughts and your plan to your attending, rather than just waiting for direction. You will learn a lot by saying: "He's tachycardic. I've already given 1 mg of hydromorphone, and his b.p. is low, so I'm going to bolus with 250 ml of albumin." On the other hand, if you just say "He's getting tachycardic…" you invite your attending to prescribe the response without discussing the issue.

You are responsible for postoperative visits; you should discuss the results with the attending with whom you cared for the patient. If you transported the patient directly to an ICU, you should also fill in the formal postop note in the electronic record.

In regards to all these points, remember that your training is three years for a reason; these things will not come easily at first and expectations will be appropriate. However, the expectations will increase as you progress through your residency.

Maintain professional standards. Vigilance requires preparation; residents should have the room prepared in a timely fashion such that they will be able to visit the patient in the immediate preoperative period and still be ready to start at the appointed time. Remember that vigilance is the utmost responsibility of the anesthesiologist; therefore reading material other than that pertaining to patient care is prohibited. Even focused reading should be limited because it takes your attention away from the patient. The same applies to telephone conversations; personal phone calls in the operating room are strongly discouraged.

Post-call days should be viewed as non-clinical days, not vacation. Anesthesiologists are relieved of clinical duties on these days because of vigilance issues; however, the time can be used to further your education. Clearly, if a resident worked all night, it may be difficult to concentrate on studying the following day. However, there are many calls in which you will get substantial rest; the subsequent non-clinical day is an excellent time to read. Residents are expected to see their own inpatients on the post-call day, and they should make a strong effort to attend any scheduled conference. One must remember that there is a limited time for training (three years is not that long); you should take advantage of all that there is to offer.

New rotations bring new surroundings, responsibilities and challenges. All residents are expected to obtain the appropriate materials from the residency office regarding that particular rotation. The resident should also go to the rotation area prior to starting and ask a senior resident or faculty member for an orientation. This will relieve one's anxiety as well as improve the flow of care on the first day of the rotation.

<u>Calling your attending</u>

Each evening, you are expected to contact the next day's attending anesthesiologist to discuss your upcoming cases. You should call before 9pm; many faculty go to sleep early. In general, you should page the faculty member. Don't leave a message on a home machine. Don't leave email.

Recently, many residents have been sending text pages to faculty. This is acceptable, but give some thought to the wording. Suppose your page says: "Hi, Dr. Snow. We are doing a whipple in 302 on a 65

male. Call (314) 555-1212 if you want to talk." Your faculty will—correctly—interpret this as an invitation *not* to call you, and some will accept your invitation. You will then lose the opportunity to discuss the case and to learn anything from the discussion. Faculty are expected to discuss your plans with you, and you should hold them to the obligation.

Likewise, a resident recently sent the following email at 8:15 pm:

> *Hi Dr. Snow,*
>
> *I just got home from work not too long ago […]. I will be ready for the cases tomorrow. I have no questions. If it's OK with you, I will just see you in the morning. However, if you still would like to discuss the cases, you can call me at (314) 555-1212. See you in the morning.*

A message like this—particularly one sent via email—does not give the impression that the resident is actively engaged in learning.

Progressive responsibility and lines of authority

Throughout residency, you will spend most of your clinical time directly caring for patients under the supervision of a faculty member. At the beginning of your training, during the tutorial period, your faculty member will remain continuously present during your care. As your skills grow, you will be given more latitude to care for patients without the direct presence of your supervising faculty member. Of course, you will also gain responsibility by being assigned to progressively more challenging anesthetics. At all times during OR rotations, you faculty member will be present in-house and immediately available to you.

In some subspecialties—such as cardiac anesthesia and critical care—your care team may comprise a resident, a fellow and a faculty member. Clinical anesthesiology fellows are gaining experience in supervising anesthetics, and when possible, you should direct ongoing management questions to the fellow. However, legal requirements for the physical presence of an attending do not change when a fellow is involved in a case, and your faculty member must still be present for critical events such as induction, emergence and line placement. Your fellow should generally remain in the room with you for much of the case, and you should use his presence as an opportunity for extensive bedside teaching.

Some resident roles are intended to teach anesthesia supervision, as well. These include the ICU junior fellowships, the senior resident on night call, the senior resident in the preoperative clinic, and the sick-backup resident when acting as a junior fellow in the neurosurgical OR's. These residents will generally be given as much autonomy as is consistent with law and patient safety, in much the same manner as fellows.

Our department employs CRNAs, and it also hosts a training program for nurse anesthesia students (SRNAs). Under non-emergency circumstances, residents will not be assigned to care for patients concurrently with CRNAs or SRNAs. In unstable or emergency circumstances, of course, you should offer help in whatever way is best for patient care. Likewise, you will often receive help from CRNAs if one of your patients becomes unstable.

Didactic expectations

Conference attendance

You should attend all of the department's general resident education conferences, as well as those of your current clinical service. It is the responsibility of the faculty to provide relief for residents to attend the conference.

Your conference attendance is recorded, and the Clinical Competence Committee uses this information to assess your professionalism. If you are unable to attend a conference, make sure that the residency office knows why. (If you are on vacation, the office will figure this out automatically.) Just send the Residency Coordinator a short email ("I missed Grand Rounds. I was on Trauma/nights and a Level 1 trauma arrived.") Excused and unexcused absences are tracked separately.

Conference participation

All residents present at least one case at the clinical case conference in conjunction with a faculty member before they graduate. During their CA-3 year, residents prepare M&M conference presentations. Residents also give presentations at the OB, Pain, and Pediatrics Journal Clubs and other conferences throughout the year. Further, residents are encouraged to participate in the discussions during all conferences.

EVALUATIONS

Evaluation of residents by faculty

The goal of the evaluation process in our department is to provide feedback regarding residents' performance. The process differs from the grading systems that are common in school. Grades in school most often were based solely on the results of objective tests or papers. The goal of residency, however, is not to attain a grade; rather, it is focused on providing the framework to become an excellent clinician. This is difficult to evaluate using traditional tests. Rather, the attending anesthesiologist, who is also the instructor, evaluates each resident's performance as a physician on a daily basis. This is meant to be constructive critique that will help the resident reach their goal of becoming an independent, competent anesthesiologist.

There are three levels in the evaluation system. The first level, and perhaps the most meaningful, is the evaluation by the individual faculty member on a daily basis. Each faculty member is encouraged to speak to each resident at the end of the day and provide meaningful, constructive criticism. The resident is also encouraged to seek feedback from the attending anesthesiologists with whom he/she has worked.

The second level of evaluation is done in writing. Each faculty rotation coordinator will produce monthly evaluations summarizing the performance of each resident during that block. These are composite evaluations: rotation coordinators are expected to poll the other faculty in their area, and make their assessments based on the composite judgment of all of these faculty. Therefore, monthly evaluation forms don't specifically reflect only the personal judgment of the rotation coordinator. The rotation coordinator is also encouraged to give each resident verbal feedback following completion of a rotation as well as seek feedback from the resident about his/her experience on the rotation.

Residents are also evaluated on the basis of standardized exams, of course. Residents take the Anesthesia Knowledge Test (AKT) several times, the annual In-Training Exam from the ABA, as well as the various exams required for board certification from the ABA. The certification process is currently changing, and the exams that you will be required to take are outlined below. Results from all of these exams will be made available to you and will be kept in your file for review.

The third level of resident evaluation is the review process. All residents are encouraged to view their evaluations at any time in the residency office. Although the evaluation forms are not allowed outside this office, each resident is provided with a private area to read the documents so that confidentiality is maintained. Each resident's progress is reviewed in the winter and summer, usually by either the Program Director or Assistant Program Director. At this meeting, we will review all aspects of your training, including your clinical evaluations, exam grades, and other progress reports (such as your case logs, your academic project, and other achievements.) Before meeting with the Program Director, you should meet with your academic advisor to discuss any current issues.

The departmental clinical competency committee also reviews each resident's performance at least every six months, as dictated by the ABA. The rotation coordinators together make up the clinical competence committee. The committee is charged with the task of determining if each resident meets the criteria for competence that are dictated by the ABA. A copy of this form is included in the appendix. Additionally, this committee is also charged with determining the progress of each resident along each milestone specified by ACGME. The milestones can be found on ACGME's website, and are divided among the familiar six areas of competence: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems-based practice. The ACGME core competencies are explained in the appendix. The departmental approach to ensuring that these core competencies are taught and the mechanism for resident evaluation in these areas are also listed in the appendix.

Evaluation of faculty by residents

All residents are asked by the Chairperson to evaluate the faculty in writing. This evaluation takes two forms. First, residents fill out monthly forms, using New Innovations, for each faculty member with whom they have worked during the past month. These forms entail evaluating each faculty member against an ideal standard, and are used to provide feedback to the faculty member. Second, residents annually evaluate faculty's contribution to their education in a competitive fashion. That is, faculty's educational contributions are judged against those of other faculty. The department takes its educational mission seriously, and these evaluations form an important piece of feedback that helps us to improve it. (As evidence of this commitment, the department allocates a pool of money to faculty this year in the form of educational bonuses. Residents' evaluations are weighed in to this process. So please take this responsibility seriously.)

Evaluations are kept strictly anonymous. In order to preserve your anonymity, we suggest that you not make narrative comments that would make your identity obvious.

Evaluation of the rotations by residents

All residents are encouraged to evaluate each rotation on a monthly basis using a written or web-based evaluation form. As with the faculty evaluation system, the name of the resident evaluator will be

confidential. The evaluation process will be used to assist the rotation coordinators and department improve the educational experience for current and future residents.

FORMAL EXAMINATIONS

Overview

The examination process for primary certification in anesthesiology by the American Board of Anesthesiology is in the process of changing. The result is that anesthesia residents now take quite a lot of standardized exams. New requirements apply to residents graduating on or after June 30th, 2016—i.e. all residents currently in our program. Because this change in requirements is new, residents are *strongly* encouraged to read the pertinent requirements on the ABA's website:

http://www.theaba.org/ABOUT/Policies-BOI

Listed below are all of the exams which residents in this program are required to sit:

USMLE Step 3

Permanent state licensure as a physician is necessary to moonlight, and is required for former residents to find jobs outside of a training program. State licensure is also a requirement for residency graduates to enter the ABA's board certification process. Among its other requirements, licensure requires successful completion of all steps of the USMLE.

All residents are encouraged to take Step3 of the USMLE as soon as possible. We suggest that categorical residents take the exam no later than the summer between internship and the CA-1 year. The USMLE tests general medical knowledge, and your recall in areas unrelated to anesthesiology will inevitably fade during your years of clinical training. Please don't procrastinate.

In the past, occasional residents who have put off this requirement have encountered crises at the end of their residency. For this reason, *starting with the graduating class of 2015, successful completion of all steps of the USMLE will be a requirement for promotion to the CA-3 year*. Residents who do not meet this milestone will be judged as making unsatisfactory progress on their most recent training period prior to CA-3.

The Anesthesia Knowledge Test (AKT)

The AKT is not administered by the ABA and is not required for board certification. However, it is a useful measure of resident knowledge and it provides detailed, helpful feedback on residents' strengths and weaknesses in the field. Residents in this program are required to take the AKT at the following times:

- The beginning of CA-1 tutorial period (usually categorical residents only)
- The end of CA-1 tutorial period
- The middle of CA-1 year (usually in January)
- The end of the CA-2 year

The In-Training Exam

The In-Training exam is administered by the ABA and is the best possible preparation for the Board exams themselves. Residents are required to take the In-Training exam in each year of their training. Starting with interns in the 2014-2015 year, categorical and ASAP PGY-1 residents will also take the In-Training exam.

Although there may be exceptions, scores below the 10th percentile for a resident's year of training will generally be cause for remediation or probation.

The content outline for the In-Training Exam can be found here:

http://www.theaba.org/pdf/ITEContentOutline.pdf

The ABA exams

In the ABA exam process, knowledge of anesthesiology is tested by two written exams. The first, Basic, exam tests general principles related to anesthesiology. The second, Advanced, exam tests detailed subspecialty knowledge. The content outlines for these two exams can be found here:

http://www.theaba.org/PDFs/BASIC-Exam/Basic-and-Advanced-ContentOutline

Residents will sit the Basic written exam *in June of their CA-1 year*. Residents who fail this exam may still receive a satisfactory report of training to the ABA. However, they will be required to design and implement an individual study plan. They will re-sit this exam at its next administration, in January of their CA-2 year.

Residents who fail the Basic exam twice in succession will receive an unsatisfactory report of training to the ABA for their most-recent six-month training period. This action is required by the ABA and it *does* count as formal discipline for purposes of applying for medical licensure or hospital privileges. Residents who fail the exam twice in succession are also subject to immediate dismissal from the program.

Residents are eligible to sit for the Advanced written exam after passing the Basic exam and completing 30 months of training in clinical anesthesiology. The exam is offered in January and July. In practice, this means that residents may take the Advanced exam in the winter of their CA-3 year or shortly after graduating.

Starting with the class of 2017, the Part 2 "oral" exam will be replaced with the Applied exam. This exam will comprise traditional oral exams as well as objective, structured clinical scenarios. (This is different from high-fidelity simulation. Think about it as the USMLE Step 2-Clinical Skills for anesthesiology.) This exam will be offered 8 times a year, and residents become eligible to sit for it after completing residency and passing the Advanced exam.

One other point worth noting: there will not be "Basic" and "Advanced" In-Training exams. All residents will take the same ITE. However, residents' score reports will be broken into separate scores for Basic and Advanced topics.

PROMOTION

The promotion of residents to the next year of academic training (and their ultimate satisfactory completion of the program) is based on the decision of the Clinical Competence Committee and the department chairman. The residency is required to report on residents' progress to the American Board of Anesthesiology at six-month intervals; this reporting is based on the committee's decision.

Criteria for satisfactory progress and for remediation are found in the Booklet of Information maintained by the ABA. You can find the current version of this booklet here:

http://www.theaba.org/ABOUT/Policies-BOI

Briefly, six months of satisfactory clinical training result in the residency sending a satisfactory Certificate of Clinical Competence to the ABA. Once the residency sends this certification to the ABA, the ABA credits you with the training. If the residency sends a certification that is *not* satisfactory, it must be followed by a satisfactory certification in the next six-month period. (This is commonly called "Probation.") If two consecutive unsatisfactory certifications are made, the resident must complete additional training.

The department's promotions process is also governed by the GME policies of our consortium. You can find its policies here:

http://gme.wustl.edu/About_the_GME_Consortium/Policy/Selection_Review_and_Promotion_Policies/Pages/home.aspx

The following is the consortium's policy on promotions:

> *Promotion of residents/clinical fellows to the next level of the Program depends upon the resident/clinical fellow's performance and qualifications. Decisions about promotion or reappointment of residents/clinical fellows by the Program Director are communicated to the resident/clinical fellow as soon as reasonably practicable under the circumstances and should occur at least four months prior to the end of the academic year. Communication between program directors and the hospital GME office will generally occur at least four months in advance of a new appointment year. Each program will develop individual policies detailing standards and specific processes for determining promotion or graduation from the training program*

SCHEDULING

Rotation Schedule

The academic year starts on July 1. It is divided into thirteen four-week blocks. (Blocks 1 and 13 may be slightly shorter or longer.) Each resident will rotate through all areas of anesthesiology (including pain management) during their CA-I / CA-II years. There are no elective blocks during the CA-I and CA-II years, although not all residents will have exactly the same schedule. The CA-III has a few required rotations and otherwise comprises electives. Some rotations are requirements of the Anesthesiology review committee of the ACGME. Others are included in the curriculum because the department feels

that they are necessary for broad training in anesthesiology. A review of current rotation requirements can be found at the ACGME website in this document:

http://acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/040_anesthesiology_f07012011.pdf

A typical curriculum is as follows:

CA-1 rotations	CA-2 rotations	CA-3 rotations
2- tutorial	1-neuro	1-float
1-neuro	1-CT	1-trauma/firefighter
1-CT	1-ENT	1-preop assessment
1-ortho	1-OB	1-PACU/float
1-OB	1-pain	9-elective
1-ambulatory	1-regional	
1-pelvic	1-ICU	
1-pain	1-HTV (pod 3)	
2-ICU	1-float	
1-trauma/float	1-trauma/float	
1-peds	3-peds	

Research rotations during residency

The department supports any resident who is interested in pursuing a research project during residency. The ABA determines the number of rotations during residency that can be dedicated to nonclinical pursuits such as research. The ABA's current guidelines can be found in this document:

http://www.theaba.org/PDFs/Resident-Options/Policy_Info_Templates_for_Research_FA07

Participants in the categorical or advanced residency tracks will be granted research time in one of two ways. Some residents will be admitted to the residency under the Scholars Program. These trainees will typically be assigned three blocks of research in the CA-2 year and six in the CA-3 year. Trainees who are not Scholars participants may apply for research time to be taken during their CA-3 year. CA-2 residents will receive invitations inviting them to submit research proposals for CA-3 projects. Competitive proposals must describe feasible projects and have the support of a faculty mentor. Proposals can request 1-6 dedicated CA-3 research blocks. The Scholarship Oversight Committee will judge the proposals. Residents whose proposals are approved will be scheduled for research time in their CA-3 year.

In order for you to complete a research rotation satisfactorily, you must produce a tangible report in the form of a publishable manuscript. This manuscript does not have to be accepted for publication (although of course this is desirable), but it must meet the minimum standards established by your faculty mentor and the publication/organization to which it is submitted.

Other nonclinical and off-site rotations during residency

In order to ensure compliance with the Accreditation Counsel for Graduate Medical Education (ACGME) and American Board of Anesthesiology (ABA), all requests for off-campus rotations and non-clinical departmental rotations must be reviewed by the residency office prior to approval and scheduling. These

governing agencies have strict criteria that must be met in order for you to receive credit for these months towards completion of your 36 months of advanced clinical training.[2] In addition, a resident must be in good academ ic standing without current deficiencies or ongoing remediation.

The approval process for off-campus clinical rotations through the ABA can be a lengthy ordeal taking up to 6 months. Therefore, please contact the residency office if you are considering an off-campus rotation so that we can begin this process. Rotations within the BJC system but at an off-campus location must be approved by the respective Division Chief (e.g. Dr. Robert Swarm must approve a pain rotation at BJC-West County).

If you would like to schedule an administration/education rotation in your CA-3 year, the approval process will be similar to applying for the advanced research rotation. We will need a letter from a faculty member agreeing to mentor you for the rotation, a brief description of your objectives for the rotation, a timeline for completion of a project, and a tangible "work product" upon completion of the rotation. A completed manuscript and/or a formal presentation that meets the minimum standards established by your faculty mentor will usually suffice.

If you have any questions regarding advanced research tracts, off-campus rotations, and departmental administration/education rotations, please feel to contact the Program Director.

Scheduling Transitions

Transitions between resident assignments will usually occur at 0700 on the day following the end of the previous assignment. For instance, a resident moving from a pediatrics rotation to a neuro rotation might be expected to take pediatrics call on the Sunday night at the end of the pediatrics rotation. This resident would be postcall on the first day of her neuro rotation, and then report to the neuro OR's on Tuesday morning.

Likewise, vacations are assigned in one-week periods beginning and ending at 0700 on Mondays. Under normal circumstances, the program will attempt to keep the weekend preceding a vacation free from clinical duties. However, this may not always be possible. (It is particularly likely that residents may work on the weekend preceding a vacation during internship and during ICU months.) Residents are strongly encouraged not to make travel plans for the weekend preceding a vacation until they have confirmed with those in charge of their rotation that they will be free.

Daily OR Scheduling

Daily assignments are made based on scheduled cases and available staff. Each Pod or other clinical location makes its own schedule. The general process is:

1) Available personnel and a tentative OR schedule are available the morning of the previous day
2) Residents are assigned to rooms based on their educational needs
3) Nurse anesthetists are assigned to the remaining rooms
4) Faculty coverage is assigned
5) The schedule is returned to the local scheduling secretary

[2] For example, 1 or 2 week overseas "medical mission" experiences are usually not approved by the ABA. If you are interested in participating in this sort of trip, we will work to try to accommodate this participation in your schedule. However, the time spent will probably not count toward your graduation requirements.

6) Medical students are assigned to rooms with senior residents or solo faculty by the medical student rotation coordinator
7) Nurse anesthesia students are assigned to rooms with CRNA's or solo faculty by College of Nursing CRNA faculty

At about 1500 (on the south campus), the schedule is published. At this point it becomes available on the Department's secure intranet site. (You need your WUDA account and password to access it.) Keep in mind that the case schedule may change based on cases added later in the afternoon. The schedule will remain on the intranet until the next day's schedule is published; the site does not store historical data.

Case requests from residents

Often, residents have specific goals for themselves during rotations. For instance, a resident rotating through HTV might have had lots of prior experience in liver resections, but relatively few vascular cases. If this is the case, *you should tell the pod leaders* about your request. Generally it is very easy to accommodate this sort of request in the daily schedule, and pod leaders are very happy to help. However, relatively few residents make this sort of request. It is *not* improper to request certain case types. On the contrary, it shows that you are actively engaged in managing your own professional education.

Call Schedules

CA-1 residents currently do not take call for the first three blocks. We understand that the transition into your clinical anesthesia time requires an entirely new fund of knowledge and these free weekends provide extra time to keep up with the reading required to achieve this. The CA-1 residents do not work "late rooms" on weekdays during the tutorial period, either.

The call schedules for most rotations originate from the chief residents and residency office. Currently, each block's call schedule is completed 6 weeks prior to the start of the block. If a resident has a special need regarding the call schedule during a particular block, these are communicated to the chief residents prior to this time via email.

Some call schedules do not originate from the chief residents office. The pediatric anesthesiology fellows produce the call schedule for SLCH. The ICU call schedules are made by attendings, fellows, or administrative staff in those areas. Finally, the pain management call schedule is arranged by the pain fellows.

Illness and Absence Procedures

This policy and procedures guide addresses all changes in resident schedules that involve illness, resident emergencies, planned short-term absences, or any change in assignment from a resident's previously detailed rotation or call schedule.

1) "Resident illness or emergency absence"
   a. This section addresses any absence or illness that is not known about far enough in advance (generally 24 hours) to utilize the below procedures for "Planned absence".
   b. Notification
      i. The resident will notify the appropriate rotation chief or contact.
      ii. A chief resident must be notified by the resident
      iii. Sharon Stark must be notified by the resident
   c. Coverage

i. The Program Director, along with the chief residents, may determine if a situation is more appropriately addressed as a "Planned absence" and therefore the "Planned absence" procedures will be followed instead.
ii. Usually these absences are covered by the "Senior Jeopardy" resident. In the case of concurrent absences, the chief residents will determine other coverage.
iii. A "Call 3" backup system is maintained to cover emergency absences on weekend shifts.

2) "Planned absence"
   a. Definition
      i. This covers situations where the need for a **previously unpredicted** absence arises after the daily assignment schedule has been completed. This schedule is completed approximately 6 weeks prior to each block.
      ii. This situation includes job interviews, medical problems, family emergencies, etc. Also included are absences which were **both previously predicted and discussed with the Program Director and the chief residents**, but for which an exact date of absence could not be determined at any prior time.
   b. Notification
      i. The resident must notify the chief residents at the earliest possible date. **In all cases, the chief residents should be notified as soon as possible when the need for a future absence is predicted, even if the exact date or duration of absence is not known.**
      ii. The resident will notify the appropriate rotation chief or contact.
      iii. The residency office and the Program Director must be notified.
      iv. All these notifications should occur by email or by both email and verbal notification.
   c. Coverage
      i. The Program Director will review the request and discuss the circumstances with the chief residents.
      ii. After or while the above contacts are being notified, the chiefs will notify the central scheduling office (CSO) and if early enough notification is provided and resources are available, coverage will be provided by the CSO. If insufficient time is available, the CSO will notify the Chief Residents and they will attempt to find coverage via the senior jeopardy resident.
      iii. Again, before the absence can be arranged, approval must be obtained from the Program Director, the rotation chief, and the chief residents. If there is any problem obtaining approval, the resident should notify the Program Director or the chief residents of the problem.
3) Call schedule switches or other schedule changes
   a. **No call schedule, daily schedule, or any other schedule change can be completed without obtaining the approval of the Chief Residents.** The requesting resident will notify the chief residents, who will assist in determining if a change is possible. Even on rotations where the Chief Residents do not govern the schedule, it is important that they are notified in advance of any changes.

<u>Notification in case of illness</u>

If you are unable to report for work, usually because of illness, you should notify the following people. Please let the department know *as early as possible, and no later than 0600*, so that alternative coverage can be arranged.

- Notify a chief resident.

  - Let a chief resident know as soon as possible, even if the absence is not certain.
- Leave a message with the residency office (x26978)
- Notify the sick coverage coordinator for your rotation:
  - ALL operative rotations and OB: Jan Davis, (314) 454-7954
  - CTICU: attending and on-duty resident, (314) 362-4026
  - SICU: attending and on-duty fellow, (314) 362-4060
  - Pain: fellow and on-service attending, page (314) 424-PAIN
  - Shriners: your assigned attending for the next day

Absence from Training Policy

Resident absences for any reason, including vacation and illness, are governed by the policies of the ABA and the Consortium's GME office. The ABA's policy can be found here:

http://www.theaba.org/ABOUT/Policies-BOI

The GME policy is linked from this page:

http://gme.wustl.edu/About_the_GME_Consortium/Policy/Leave_Benefits_and_Support/Pages/home.aspx

Briefly, the ABA allows residents to miss up to 60 total workdays during their CA-1 thru CA-3 years, including sick leave and vacation. Normally, 45 of these 60 days are allocated to the three annual vacation weeks in each of the three years. The GME office gives residents 15 days of vacation and 15 paid sick days per year (plus whatever leave residents may be entitled to under FMLA). Obviously, these two policies are not exactly parallel. If you require more than five sick days in a year, you remain in good standing with the residency program and with the GME office. However, you will then have missed more than the 60 days that the ABA allows. You may then have to make up the extra days on a 1:1 basis at the end of your residency.

Vacation Policy

All residents will receive three weeks of vacation per academic year. The residency office will distribute vacation preference sheets in the spring for the following academic year. The number of available slots is decreased during the tutorial period, and CA-1 residents may not take vacation during tutorial. Vacations are not permitted during the weeks of the ASA and AANA meetings.

Residents will generally be given one of the three winter holiday periods free from any call responsibilities. Requests for these holidays will be distributed in early fall. Residents may request vacation weeks over holiday periods. However, residents with vacations over holiday weekends will not be given another "protected" winter holiday.

There are limits on the number of people who can be on vacation each week. Senior residents are given scheduling priority, and thereafter, priority is allocated in the order in which the requests were received.

Any vacation change has implications for your fellow residents and for patient care. Therefore, all potential changes need to be requested in writing and approved by the chief residents, residency director, the division chief, and the central scheduling office. Every effort will be made to resolve problems, but there may be circumstances that dictate otherwise.

SPECIFIC RESIDENT ROLES AND RESPONSIBILITIES

Cardiothoracic / Liver Call

Call Numbers

The CTL call system is in a state of change for 2016-2017. Currently, the team comprises four attendings (CT first call, CT second call, liver first call, and liver second call). Residents take first cardiac call (CT1) on certain nights. Residents take first liver call for one week at a time. On weekends, a backup cardiac call (CT2) is present, as well. For blocks 1-3 of the academic year, weekend CT2 shifts are covered by cardiac fellows. Starting in block 4, these shifts may be covered by residents.

Residents will not be assigned to cardiac or liver call until they are enrolled in their first cardiac rotation.

Call Responsibilities

CT1 is home call. CT1 is responsible for taking over the CT case expected to run the longest at the end of the day. CTL1 is the first resident to be called to do any emergency CT case or until 0700 the following day. However, if a weekend CT case is set to begin at 0700, that day's CT1 resident will be expected to set up the room and have the patient in the OR by 0700 (i.e. if a CABG is set to begin on Saturday morning at 0700, then SATURDAY'S CT1 resident, not Friday's will be expected to show up early and set up the room). The CT1 resident complete any remaining CT inpatient workups once the last CT case is complete. After 2000 hrs, the CT1 resident will discuss all inpatient CT pre-ops with the Trauma attending. CT1 is expected to stay in-house until all CT inpatient pre-ops are completed.

Liver call is home call. The resident will be expected to continue his normal assigned rotation until a liver transplant occurs. At this time, the liver call resident will be relieved from his other clinical duties (if during work hours) and perform anesthesia for the liver transplant. If a transplant passes 2100 hours, the resident will report for duty at 1200 the next day. If a transplant passes 2400 hours, the resident will not report for duty the next day.

Emergencies

CT and liver calls are also assigned to the disaster response hierarchy. In exceptional circumstances (multiple traumas, terrorism, mass casualty, major disaster) these residents, among other staff, are necessarily included in the disaster response plan.

Assistance with inpatient preops

Our goal as a department is to assess all non-emergent patients before they arrive in the preop holding area. This goal serves two functions: First, it allows us to assess whether patients are medically optimized for surgery and anesthesia in a timely fashion. If we identify problems, we can work to further assess or to correct them. Second, it allows the OR workflow to run more efficiently.

In general, the list of patients needing assessment is maintained by the IPAP service until 1700 on weekdays, and by the call / trauma attending at other times. Preops that aren't assessed during the day become the responsibility of the call teams overnight. Ideally, all inpatients known to the night team will be evaluated in the evening. However, work loads often make that goal unrealistic. The senior resident taking call should review potential preops with the trauma (or call) attending and prioritize preoperative assessments according to clinical criteria and the OR workload.

Resident Clinical Experience Log

Residents are responsible for maintaining a current clinical experience log. The purpose of the log is to ensure that the resident is meeting the minimal clinical experience that is outlined by the RRC. The program director will review the logs on a regular basis. Please realize: you are expected to log *all* of your cases, not just those that fulfill specific case distribution requirements. By the time you graduate, your log should reflect a comprehensive record of your clinical activity for three years.

ACGME requires residents to keep their case logs using their system. The log-in page for this system, along with instructions for using it, can be found here:

https://www.acgme.org/acgmeweb/tabid/161/DataCollectionSystems/ResidentCaseLogSystem.aspx

A list of current case requirements can be found in the following document:

https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/040_anesthesiology_2016.pdf

A summary of these requirements follows. The definitive list, however, can be found through ACGME.

- 40 vaginal deliveries, including high-risk
- 20 cesarean sections
- 100 patients < 12 years of age, including
    - 20 < 3 years of age, including
        - 5 < 3 months of age
- 20 cardiac surgeries, mostly using CPB
- 20 major vascular
    - not including HD access
- 20 noncardiac intrathoracic surgeries
- 20 intracerebral surgeries
    - some may comprise intracranial endovascular
- 40 epidurals
    - including cesarean sections
- 40 spinals
    - including cesarean sections
    - CSE's can count for epidurals and spinals
- 20 surgeries for complex, lift-threatening pathology
- 40 peripheral nerve blocks
- 20 pain consults
- Patients with acute postop pain
- Preop evaluation
- Specialized techniques including
    - Broad spectrum of airway management
    - Invasive monitoring
    - EEG, not including BIS
- 0.5 months PACU care
- 4 months of ICU care
    - No more than 2 months in PGY1
- Remote anesthesia

OTHER POLICIES

Disciplinary Action Procedure

The Department of Anesthesiology at the Washington University School of Medicine and its faculty are committed to providing our residents and fellows with the clinical training, professional guidance, and academic instruction needed to become expert consultants in the specialty of anesthesiology and/or its subspecialties. We are also committed to provide each trainee with the constructive feedback, counseling, and when necessary, remediation necessary to enable each resident/fellow to achieve competency in the core areas as defined by our Department and the Accreditation Counsel for Graduate Medical Education (ACGME) so that we may recommend each resident/fellow for the certification process of the American Board of Anesthesiology.

During their training, a resident/fellow may be identified as being deficient in one or more areas. This area(s) of deficiency may be identified by individual faculty, rotation coordinators, the Clinical Competency Committee and its chairman, the Program Director, or the Department Chairman. Deficiencies may include but may not be limited to:

1. Violation of the bylaws, rules, regulations, policies, or procedures of the Consortium, School of Medicine, Hospital, Department, Division, or training program, including violation of the Responsibilities of Residents and Clinical Fellows delineated in the resident manual or established by the Consortium. This latter document can be found here:
   http://gme.wustl.edu/About_the_GME_Consortium/Policy/Selection_Review_and_Promotion_Policies/Documents/Responsibilities%20of%20Residents%20and%20Clinical%20Fellows.pdf

2. Poor academic or clinical performance related to the program-specific requirements of the training program or national norms for residents at an equivalent level-of-training.

3. Professional misconduct related to the practice of medicine including inappropriate or unprofessional behavior in the interactions with patients, families, or medical colleagues.

4. Clinical or professional conduct that is inconsistent with established standards-of-care and/or that may be harmful to patients.

5. Personal or professional misconduct that calls into question the ethics, judgment, or qualifications of the resident/fellow and/or that may prove detrimental to the reputation of the resident/fellow, training program, Department, Hospital, or Medical School.

When a deficiency is found to have sufficient merit, disciplinary action may be required and may include the issuance of a warning, probation, or dismissal. While the Consortium's GME office maintains a policy that also assures the resident/fellow due process and clearly states the specific procedures, the Department of Anesthesiology will exhaust all means at its disposal to successfully identify, evaluate, and remediate any known deficiency regarding any of its residents/fellows prior to involving the Consortium's GME office or invoking its policy. However, a resident/fellow may at any time involve or consult the Consortium's GME office.

The Consortium's policy on disciplinary action can be found here:

http://gme.wustl.edu/About_the_GME_Consortium/Policy/Pages/DisciplinaryorDismissalActionsDecisions.aspx

No disciplinary action will be taken without the involvement of the Program Director and Department Chairman. In matters of academic and/or clinical competence, the Clinical Competency Committee and its Chairman may be involved primarily and supervise the remediation process. No final disciplinary action will be instituted until a summative evaluation of the deficiency has occurred including a meeting with and personal account from the involved resident/fellow. The Program Director and the resident/fellow's faculty mentor may serve as the resident's advocate in the evaluation and remediation process if required.

Specifically, when a deficiency is identified it will be communicated to the Program Director who will determine the most appropriate course of evaluation. Investigation will always include obtaining a personal account from the resident/fellow. In the case of a minor or initial academic, clinical, or professional deficiency, counseling may only be necessary and no formal action will be required. For a major or repetitive deficiency, the Program Director will consult the Chairman of the Clinical Competency Committee and/or the Department Chairman. If sufficient merit is discovered regarding the deficiency, a warning may be issued in writing to the resident/fellow clearly outlining the deficiency, the course for remediation, the departmental monitoring of remediation process, and the endpoint for successful remediation of the deficiency. This will also be communicated to the resident/fellow in person in a meeting that may also include the Department Chairman, the Chairman of the Clinical Competency Committee, and/or the resident/fellow's mentor. The Program Director and the resident/fellow's faculty mentor shall serve as the resident/fellow's advocate during this disciplinary/remediation period while the Clinical Competency Committee and/or the Chairman serve as objective representatives of the Department. Failure to successfully remediate an outlined deficiency within a designated time period, usually a 6-month period, may result in the placement of the resident/fellow on probation. This disciplinary action must be reported to the Department Chairman and the American Board of Anesthesiology. Failure to successfully correct the deficiency in the subsequent 6-month period to the satisfaction of the Department would result in the lost of credit for that 12-month training period as well as may result in dismissal from the residency training program.

On occasion, clinical or professional misconduct may be so severe as to result in the immediate issuance of probation or dismissal following the above described process of evaluation. In this event, the Consortium's GME office and policies would also become applicable. Again, every resident/fellow has the right at any time to contact or seek counsel from the Consortium's GME office during any Departmental disciplinary or remediation process.

The Department of Anesthesiology wishes to assist each resident/fellow with attaining all of their academic and professional goals. However, we have an obligation to ensure that each resident/fellow obtains competency in all of the areas necessary to practice independently and function as a consultant in anesthesiology prior to recommending them for certification by the American Board of Anesthesiology. In addition, we must make certain that each resident/fellow adheres to the personal and professional standards of our Department, specialty, institutions, and state regulations. Having a strong departmental disciplinary policy will help us achieve this goal.

Grievance Policy

All residents have the right to appeal decisions made regarding their education and performance. This grievance policy follows that which has been laid out by the Graduate Medical Education Office. The link to the current policy can be found on this page:

http://gme.wustl.edu/About_the_GME_Consortium/Policy/Selection_Review_and_Promotion_Policies/Pages/home.aspx

In short, all resident grievances should be referred first to the Program Director. If the resident feels as though the problem has not been adequately addressed or solved, they may appeal the decision to the departmental Chairman. Again, if (s) he does not feel as though their grievance has been adequately addressed, the decision may be appealed to the Associate Dean for Graduate Medical Education.

Patient Confidentiality Policy

As physicians, we need to have all the information about our patient as possible to make the correct medical decisions. With this knowledge comes responsibility. The physician-patient relationship is held in the highest regard by society and the legal system. Patient confidentiality is essential to maintaining the integrity of this relationship. The preservation of patient confidentiality is an absolute requirement of all residents in this program. It is also a legal responsibility.

Great care must be used to protect this patient right. Confidentiality can be breached in many ways that one may not realize. For example, the discussion of patient care in public places is prohibited. However innocent that the discussion may seem, it violates that patient's right to confidentiality. It is also wrong to discuss a patient's care or condition with any person who does not have a direct role in caring for him or her. Finally, in the electronic age, it is possible to access much information over the hospital computer system. Remember that accessing patient information of which you have no direct clinical need is wrong. Furthermore, it will be tracked, and you will be held responsible. Aside from the moral aspects of breaking this code, there are also legal implications. Breaking patient confidentiality is grounds for immediate dismissal.

In addition, the Consortium maintains a policy on social media use. It can be found from this page:

http://gme.wustl.edu/About_the_GME_Consortium/Policy/Other_Policies/Pages/home.aspx

Outside Rotation Policy

Outside rotations are not required or necessary for satisfactory completion of this program. All the necessary cases are available in ample numbers to provide complete clinical training. If a resident wishes to do an outside rotation, it must be in an approved program with a faculty mentor, curriculum, and evaluation process. It must be prospectively approved by the residency director and departmental chairperson. In addition, it must fulfill the requirements of the ABA and ACGME. (See the section on nonclinical CA3 rotations above.)

Travel Policy

Under normal circumstances, the department will support the attendance of CA-2 residents at the annual meeting of the American Society of Anesthesiologists. CA-2 residents are encouraged to present original work at ASA, but they are not required to do so.

In addition, the department normally supports the travel of a fixed number of residents to the Midwest Anesthesia Residents Conference each year. Resident attendees at MARC are expected to present a case or make another appropriate presentation.

In addition, the residency will generally support the presentation of original resident research at national meetings, subject to the following guidelines:

1) The residency will only support the presentation of each substantially new piece of research to one meeting.
2) Residents who plan to ask for departmental support—either in the form of nonclinical time or financial travel support—must submit their abstracts to the residency program for approval *before* submitting them for inclusion at a meeting. The program will generally not be able to support requests that haven't been pre-approved.
3) For residents who have separate educational budgets (e.g. Scholars and ASAP residents), the department will generally support presentation of new research at one meeting annually. These residents may use their educational budgets (with prior approval by the program) to travel to meetings in excess of this limit.
4) Presentation of clinical cases does not qualify as original research. For example, residents are encouraged to submit cases to the "Medically Challenging Cases" session of ASA, but they should do this during their CA-2 meeting attendance.
5) On occasion, residents may receive travel support from other sources, such as the department's research divisions or individual faculty members. In these cases, residents should still seek approval from the program before submitting their work or making travel arrangements.

The department remains strongly committed to supporting research by residents. Presentation of work at national meetings is one way to achieve this goal. An orderly process of approval will ensure that the department has sufficient resources to support the research of all interested residents.

Duty Hour Policy

All residents must keep an up-to-date log of their work hours. This log is maintained through New Innovations. You will be given a user ID and password. The department subscribes to all duty hour rules imposed by ACGME. These restrictions have two primary purposes. First, they protect patient safety by reducing the chance that residents' clinical work will be compromised by fatigue. Second, they ensure that residents have sufficient rest that they can concentrate on clinical training.

The department expects all duty hour logs to be complete and accurate, including the logs of PGY-1 residents on rotations outside of the department. Inaccurate recording, even if well-intentioned, ultimately compromises care and education for both yourself and other future residents. Duty hour logs must be accurate.

Current ACGME rules relating to duty hours were substantially revised effective 1 July 2011. The current rules can be found here:

https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/040_anesthesiology_2016.pdf

Definitions related to duty hours can be found here:

https://www.acgme.org/acgmeweb/Portals/0/PDFs/dh-GlossaryofTerms2011.pdf

Briefly, some of the more important rules are as follows:

- No more than 80 in-house hours per week, including all in-house call and moonlighting
- One day / week completely free, averaged over 4 weeks
- Continuous duty
  - PGY1: no more than 16 consecutive hours
  - PGY2 and above: no more than 24 consecutive hours plus 4 extra for transitions of care
- At least 8 and preferably 10 hours off between shifts
  - 14 hours free after a 24-hour shift
- Call frequency no more than one in three, averaged over 4 weeks

PGY1 resident should know that the department of surgery is participating in a two year (July 2014-June 2016) study on extended duty hour shifts for interns. So interns in their surgical rotations will work 24+4 hour shifts in the same manner as upper level residents. This is not a violation of policy. The 16-hour rule continues to apply in all other rotations.

Duty Hour Exceptions Policy

The 2011 duty hour rules acknowledge that occasionally, residents' educational interests are best served by exceptions to the usual hour restrictions. Typically these exceptions would occur in order for a resident to continue to care for a single, educationally beneficial patient. For example, a resident might decline to be relieved in order to continue to care for an unstable pheochromocytoma patient, despite a possible violation of the 8-hour rule

Occasional exceptions like this are permissible, but must be carefully monitored. After *any* duty hour violation, please provide the residency office with a brief explanation for the cause of the violation. You should give us this explanation whether the violation was educationally justifiable ("finished an awake craniotomy") or not ("nobody relieved me"). You can provide these explanations within New Innovations. We will use this information to keep track of violations. If any pattern of unjustified violations emerges, we will correct it promptly.

Transitions of Care Policy

Transitions of care between anesthesia providers represent a significant source of potential error and risk during the provision of perioperative care. For this reason, accurate and complete handoffs between providers should be treated with a great deal of respect. The following principles should be employed:

1. Each clinical rotation has a rotation coordinator who has the final responsibility for the design and supervision of the handover process on his service.
2. Unnecessary transitions of care should be avoided; it is always desirable to finish one's own cases whenever possible. (For instance, it is usually inappropriate to accept relief during closure at the end of a surgery.)
3. Unsafe transitions of care should be avoided. It is usually inappropriate to accept relief on an unstable patient. It is permissible to violate general standards of duty hours to provide continuous care to a single unstable or educational patient. If this occurs, you should report the event to the residency program. (See the relevant section of this manual for details.)

4. Transitions of care in operative rotations should always occur in the OR. Our electronic data system has a pre-defined process for a thorough review of the anesthetic at the time of care transitions. You should employ this system fully. That is, you should thoroughly discuss all aspects of the anesthetic, and not merely "click through" the summary screens.
5. At the time of relief in the OR, you should inform the attending anesthesiologist of the ongoing care transition.
6. Transitions of care in the ICU's should occur at the patient bedside according to the established protocol of that unit.
7. Transitions of care between interns in off-service rotations should occur according to the policies of the host department.
8. When possible, attending faculty should supervise transitions. For transitions in the OR, the electronic record contains the facility to track faculty supervision of resident transitions. Please be sure to note supervision when it occurs.

Insofar as it is possible, rotation coordinators, pod leaders, and call/trauma attendings will arrange the schedule to minimize avoidable transitions of care.

Attending Involvement Policy

The intensity of the practice of anesthesia requires frequent communication and involvement with your supervising attending faculty. Some events, by their nature, require the presence of a faculty member. These events include all "critical portions" of the anesthetic, such as induction, emergence, placement of invasive lines, and placement of regional or neuraxial anesthetics. In these cases, the involvement of your supervising faculty is necessary both for the safety of the patient and for compliance with laws and regulations related to billing. If you are ready to perform an elective invasive procedure and your faculty member is not present, you should wait until s/he arrives.

Communication with your attending faculty (or a supervising fellow or junior fellow) is also necessary in periods of instability, or with unforeseen clinical events. Because residents differ in their experience levels, it is difficult to state rigid rules about when an attending should be contacted. If a patient's clinical condition changes in an unanticipated manner, you should contact your attending. If you feel uncertain about how to manage a clinical development, you should contact your attending. If you feel that the patient is endangered, your attending should be summoned. (Finally, if an attending surgeon asks for the presence of an attending anesthesiologist, you should call for him without argument. Perhaps you feel that the situation is not serious enough to warrant the presence of your faculty member. This debate should occur between the two involved attending physicians, not between you and the attending surgeon.)

If you are working in areas outside of the OR, you should follow the policies of that unit or department regarding direct supervision from attending faculty.

All departmental faculty carry pagers while on duty. In addition, faculty at BJH carry portable VOIP phones. If you can not reach your supervising faculty through these means, you should contact the pod leader or the trauma attending. If you are too busy with patient care to make a phone call yourself, you should instruct the circulating nurse to contact your attending for you.

It need hardly be stated that in cases of true emergency, you should promptly administer appropriate care to your patient and not delay therapy to await the arrival of a supervisor.

ACGME defines levels of faculty supervision, along with appropriate criteria for advancement. However, billing requirements for anesthesia impose the somewhat more stringent requirements that you are familiar with. In non-emergency situations, you will perform all patient invasive procedures under "direct supervision" throughout your training. All tutorial training in the OR's occurs under direct supervision. After the tutorial period, ongoing care in the OR or the ICU can be performed under either "direct supervision" or "indirect supervision with the attending immediately available."

Medical Records Policy

Residents are expected to keep their medical records current. For interns and for residents in their ICU months, this means making sure that your charts remain up-to-date in the central medical records office. If several weeks have passed since an omission, you will be notified that you have overdue records to complete. If you do not comply, your privileges in the hospital are subject to suspension. If this happens, you will have to disclose it on various licensing and credentialing forms for the rest of your career. So it is strongly in your best interest to keep your records current.

Occasionally, if a patient has been hospitalized for a long time after your missed record, you may qualify for suspension without warning when the chart gets to medical records. Therefore, if you are expecting missed records, it is a good idea to call medical records periodically to check. When requested, they will pull your pending records so that you can finish them. The Medical Records office is located on the first floor of Barnes-Jewish South by the Rand Johnson elevators. Computers and dictation phones are available there. You can call the MD's desk in medical records directly at 362-1892.

Residents on clinical anesthesia rotations are expected to keep their charts accurate using Metavision, our electronic anesthesia record. If aspects of your chart are incomplete, you will be paged by clerical staff to ask for corrections. Respond to these requests promptly. This is a headache for all anesthesia providers, and is easy to dismiss as unimportant bureaucracy. Here is why these corrections are important:

> *The federal government has strict standards about the ratios by which anesthesiologists can supervise cases. Attendings can bill for medical direction of up to four cases concurrently. If the charts from an attending's cases show that she directed five concurrent rooms for even one minute, the total billing from all of these cases is almost completely lost.*
>
> *Likewise, attendings can bill fully for medical direction of up to two residents at once. Even one minute in which an attending supervised two residents plus a CRNA results in half-billing for all of the resident cases.*
>
> *If we find that times are missing or incorrect from cases, we can correct the record. But we can't retroactively fix the charts once we have submitted them to insurance companies. So we are very careful to make sure that all of our times are entered correctly before we ever release the records for billing. Checking these records is Joy's full-time job.*
>
> *In order to check for concurrencies, we need to have all case records entered completely. Suppose a stop time is missing. It might turn out that *another* case has an incorrect start time that needs to be corrected to avoid documenting a concurrency. We won't know this until the first case's stop time is entered. So we need to have complete records from all cases before we can make the final decision than any of them are okay.*

*What's the practical upshot? *None* of a day's cases from Barnes South can be billed until *all* of the records from that day are complete.*

This means that if you have a chart correction that you haven't addressed, you are preventing all of that day's cases from being submitted for payment. On average, our department bills $226,000 worth of services per day from Barnes South. It's strange to think that that much money is riding on a single addendum, but it is true.

On average, 18% of residents' charts require correction, but individual residents have rates ranging from 50% to 2%. (Quite a spread!) Please make an effort to keep your charting as accurate as possible. Checking the "Complete?" screen during each case will eliminate almost all of the common errors.

Fatigue Policy

Excessive fatigue increases the rate of medical errors and potentially compromises patient care. Residents are expected to know the signs of fatigue and to monitor themselves—and their colleagues—appropriately. An annual review on the signs and study of fatigue is presented to the residency each July; residents are expected to attend.

If a resident finds him/herself too fatigued to care for patients safely before starting his shift, he should inform the department in the same manner as for an illness. (See the section "Notification in Case of Illness" under "Illness and Absence Procedures.") Ideally, this situation should be rare. However, it might occur due to circumstances such as a child taken to the emergency department overnight.

If a resident finds him/herself too fatigued to care for patients safely during her shift, she should notify her clinical supervisor (the Pod Leader or ICU attending during the day, and the Trauma or Call attending at night) as well as the administrative chief resident. Substitution will be arranged from available clinical personnel, or from the senior float resident if necessary.

At the end of an overnight shift, residents should not attempt to drive themselves home if they feel too fatigued to do so safely. Two alternatives exist in this instance: first, call rooms are always available, and residents are encouraged to nap before returning home. Second, the Consortium contracts with a service to arrange for an alternate driver. Residents may contact this service, which will dispatch two drivers in one vehicle to the hospital. One of these drivers will then transport the resident home in the resident's own vehicle, after which the driver will be picked up by his co-worker. This service is free of charge to residents. Contact information is as follows:

Scooter Guy

855-726-6848, ext. 10

Please be prepared to provide your name, mobile phone number, the location where you parked, the name of the Program Director, and the name of your training program.

Guidelines for Media Consumption in the OR's

The widespread use of portable technologies such as cell phones and tablet computers has brought attention to the issue of what activities are appropriate for anesthesia providers in the operating room. These guidelines arise from the following principles and assumptions:

- The appropriateness of an activity is determined by the nature of the activity, not the medium used to consume it. For example, consultation of a textbook is equally appropriate or inappropriate whether the textbook is present in a paper binding or on a tablet computer.
- Research into the effects of intraoperative technology and reading on provider vigilance and patient outcomes is sparse.
- It is undesirable for anesthesia providers to appear distracted or inattentive in the OR, regardless of whether their actions affect patient care. The appearance of inattention reflects badly upon our specialty to the other professionals in the OR.

With these considerations in mind, the following guidelines are generally applicable within the Barnes and Children's OR's:

- Briefly consulting media for reasons directly related to the care of a patient is almost always appropriate. (Examples: checking test values or consulting a departmental clinical protocol.)
- Reading material indirectly related to patient care may sometimes be appropriate, depending on the clinical condition of the patient. (Example: a resident reviewing spinal cord anatomy and strategies for neural protection during a thoracic aortic surgery.)
- Academic reading material unrelated to the care of the patient is usually not appropriate, but may be permitted by individual attending physicians. Residents or CRNA's who wish to study in this manner should discuss their intentions with their supervising faculty member in advance. (Example: a resident reviewing for an upcoming exam.)
- Recreational materials are always inappropriate. Examples include magazines, Facebook, and recreational websites. Email unrelated to patient care also typically falls in this category.

Providers should also be mindful of the following general points:

- Any review of academic material should be brief and with no lapse in provider vigilance. Even consultation of otherwise-appropriate material can present a danger if it distracts the provider from necessary patient care. Persistent distraction from the patient is not appropriate under any circumstances.
- These guidelines are intended to apply to the primary practitioner caring for the patient at the moment, such as the resident, CRNA or fellow assigned to the case. If multiple qualified practitioners are in the room, they should agree on which is primarily responsible at the time.
- Students cannot fill the role of the primary practitioner. For example, a CRNA in the room with an SRNA, or an attending in the room with an intern, should consider herself bound by these guidelines.
- If you are in doubt about whether an activity is appropriate, imagine trying to explain your activity to the patient's family.
- If you are in doubt about whether an activity is appropriate, ask your attending anesthesiologist.

Communication Policy

The vast majority of the communication regarding call schedules, conferences, important deadlines, resident events, and other important resident information occurs via email. Therefore, you are expected to check your email on a daily basis.

Residents have a mailbox at the South Campus, which they should check and empty regularly. Residents rotating on the Pediatrics rotation also have a temporary mailbox in the Children's Anesthesiology offices that is used for the dissemination of important information.

Discretionary Fund

The department provides each resident with $3000 for the four-year period. The resident will be given $1000 each in year one, year three and year four. This fund can be used for books, computer programs, computers, medical licensing fees and the American Board of Anesthesiology examination fee. The residency office must approve any purchase. (Computers must be purchased in years PGY1 or CA-1." If purchased later, only a percentage of the cost is reimbursed.)

Society Memberships

The department pays for each resident's membership in the American Society of Anesthesiology as well as the Missouri Society of Anesthesiologists.

Scientific Meetings

The department will pay for each CA II resident to attend the American Society of Anesthesiologists annual meeting. This includes transportation, lodging, and a per diem. Every effort will be made to allow each CA-2 resident to attend this national meeting. In the event that departmental staffing needs prevent all CA-2 residents from attending this meeting, a prorated amount will be allocated to the resident's discretionary fund to be used to attend another approved scientific meeting of their choice such as a subspecialty society meeting. Residents are encouraged to submit and present original work at this or other scientific meetings. Residents may be reimbursed for travel to such a meeting, at the discretion of the Chairperson.

The department will pay for a number of residents to attend the annual Midwest Anesthesia Residents Conference. Residents must make a presentation to attend this conference. If the number of interested residents exceeds the number of allocated spots, priority will be given in the order that residents made their initial requests.

Examination Policy

All residents are encouraged to take their licensing examination (USMLE III) during their clinical base year. During your residency, you will be allowed to take time off from clinical duties to sit for the exam (two days) once; for additional attempts, you will have to use vacation time. There will be no extra leave given to prepare for this examination, so you should plan accordingly.

Moonlighting Policy

In-house moonlighting is available in the department.

- Eligibility:
  - Moonlighting is available to residents after successful completion of their CA-1 year.
  - Residents must have a permanent Missouri medical license, Missouri BNDD number and federal DEA number.
  - Residents must be making satisfactory academic progress during their training. This means:
    - Residents must have the approval of their academic adviser.
    - Residents must have satisfactorily completed all rotations in their most recent evaluation period.

- Residents must make a satisfactory score on their most recent In-Training exam or other standardized test. Typically, this will be a percentile score corresponding to a passing grade on the CA-3 In-Training exam.
    - For example, in 2011, an In-Training Exam raw score of 32 corresponded to a passing grade on the ABA written exam. A score of 32 corresponded to the 24th percentile on the CA-3 In-Training exam. Therefore, rising CA-2's and CA-3's were required to score at the 24th percentile for their level of training.
- Residents must have approval by the Residency Director and Chairman.
- Residents must be on rotations that can accommodate the extra time commitment within the eighty-hour workweek policy.

- Duties:
    - Various shifts are available, depending on departmental needs. These can include carrying the code pager overnight on weeknights, or other shifts of up to 24 hours in the OR's or the obstetric suites.
    - Residents will be supervised at all times by an attending anesthesiologist.
- Documentation:
    - Residents must provide an accurate record of their work hours using the department's duty hour logging system
    - Failure to report these hours in a timely fashion will result in the revocation of the approval for in-house moonlighting.

Outside moonlighting is strongly discouraged during the residency. However, senior residents may seek permission from the departmental chairperson to moonlight. Each case will be treated on an individual basis. The resident should be in good academic standing, and the hours should in no way interfere with the resident's education. Any violation of this policy may warrant removal from the program.

Impaired Physician Policy

Anesthesiologists are unique in that they prescribe and personally administer drugs, including controlled substances. Therefore, it is recognized that the anesthesiologist is at risk for developing substance abuse problems. The department has policies and procedures regarding the impaired anesthesia provider. They can be found on the departmental Sharepoint site under "Employee Orientation Documents." Additionally, the department conducts a seminar regarding this subject each year with the new residents and every other year for the department as a whole at grand rounds.

Our department also requires its clinical faculty and trainees to disclose known illnesses and/or conditions that may impair their ability to practice safely in the acute medical setting including the operating room, emergency/trauma unit, or the critical care unit. We maintain this policy so that we may serve as informed advocates for members of our department as well as fulfill our commitment to provide quality patient care.

Bloodborne Pathogens Policy

The department requires that universal precautions be followed at all times during patient contact. The department adheres to the policy that is outlined by the Washington University School of Medicine Environmental Health and Safety department. You can find their policy here:

http://ehs.wustl.edu/resources/EHS%20Documents/Bloodborne_Pathogens_ECP.pdf

Point of Care Testing Policy

Anesthesia providers in our OR's run blood glucose and activated clotting time tests at the point of care. Point of care testing is regulated by the lab services at BJH and therefore, in order to run these tests, you must be trained and certified by the point-of-care-testing team. You will also be required to take an annual competency test to maintain your POCT privileges.

The clinical laboratories periodically offer recertification in the anesthesiology offices. If you require certification at other times, call the POCT team at 4-7180 to arrange it.

Several other points:

- Your anesthesia billing number (four digits, starts with 2) is your POCT ID number
- Do not use any other person's ID. The hospital is required to maintain the capability to track which person performed each test.
- Be sure to enter the patient number correctly: POCT results will enter the patient's medical record.

The College of American Pathologists (CAP) performs the Accreditation for our laboratory and POCT areas. Compliance with the CAP guidelines usually satisfies State and Federal requirements

Selection Procedure for New Residents

The Anesthesiology Residency Training Program at Washington University seeks highly qualified physicians that are interested in becoming consultants in anesthesiology and leaders in their medical communities. Applications are received electronically via the Electronic Resident Application System (ERAS).

Applicants are invited to interview by the Selection Committee based upon their qualifications to become a consultant in anesthesiology. Objective criteria utilized to assess qualifications include the reputation of their medical school, performance in medical school, performance on standardized exams such as the United States Medical Licensing Exam (USMLE), quality and breath of research experience, strength of Dean's letter and other letters of recommendation, and the quality of their personal statement. During the interview, applicants are given a tour of the medical facilities, allowed to dine and speak with a large representative sample of residents, and provided the opportunity to meet with the Chairman, Program Director, and members of the Selection Committee. The interview process is designed to provide the applicant the opportunity to have all of their questions about the residency program addressed by both resident peers as well as the departmental leadership. In addition, the Selection Committee is given the opportunity to assess the applicant's essential characteristics such as motivation and commitment as well as the opportunity to assess each applicant's interpersonal and communication skills.

The Department participates in the National Residency Match Process (NRMP). Applicants may rank the categorical (4-year), advanced (3-year) and ASAP (5-year categorical) programs. The Selection Committee utilizes objective criteria to rank applicants based upon the quality of their application, their motivation to take advantage of the opportunities provided in our residency training program, and their commitment to high personal and professional standards. The Selection Committee follows all Federal laws and does not discriminate on the basis of gender, race, or religion in the application, interview, or match process.

The Selection Committee is made up of the Chairman, Program Director, a representative contingent of faculty, and the Chief Residents.

Resources

The departmental library provides several pertinent journals and computer access for medical literature searches. The Bernard Becker Medical library is located across Euclid Ave from Barnes-Jewish Hospital. The library maintains subscriptions to a wide variety of medical journals and on-line access to a number of textbooks and other resources. These can be accessed from the departmental library, any other computer in the medical center, from home, and from residents' iPads with appropriate network (VPN) access.

USEFUL EXTERNAL RESOURCES

The following external websites contain information pertinent to your training:

The Accreditation Council for Graduate Medical Education (ACGME):

www.acgme.org

The American Board of Anesthesiology (ABA):

www.theaba.org

Graduate Medical Education at Washington University School of Medicine (GME):

gme.wustl.edu